

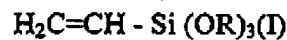
Attorney's Docket: 2000FR303
Serial No.: 09/821,876
Art Unit 1711

In the Claims:

BEST AVAILABLE COPY

1. (previously amended) Fluid silico-acrylic compositions, stable in the long term, polymerizable thermally and by radiation, by mechanism giving rise to free radicals, with a very low water (below 1%) and volatile solvent content, containing silica, a silane and a multifunctional acrylic monomer, wherein the silica is in the form of individualised particles with an average diameter in the range 9 to 100 nm, not interconnected by siloxane bonds, and the silane is a vinyl silane of the formula (I)

p 4-5+7
water +
solvent
evaporated
50°C
reduced P



in which R represents a methyl or ethyl radical, and the multifunctional (meth)acrylic monomer is an alkoxyated (meth)acrylate.

C 2. (previously amended) Compositions according to claim 1, where said composition contain 5 to 60 wt.% silica.

3. (previously amended) Compositions according to claim 2, where said composition contain 30 to 50 wt.% silica.

4. (previously amended) Compositions according to claim 1, where said composition contain silica in the form of individualised particles, not interconnected by siloxane bonds, with an average diameter in the range 12 to 50 nm.

5. (previously amended) Compositions according to claim 1, where the quantity of vinyl silane of formula (I) is within the range 0.01 g to 1 g per gram initial dry silica.

BEST AVAILABLE COPY

Attorney's Docket: 2000FR303
Serial No.: 09/821,876
Art Unit 1711

6. (previously amended) Compositions according to claim 1, where the quantity of vinyl silane of formula (I) is within the range 0.05 g to 0.7 g per gram initial dry silica.

7. (previously amended) Compositions according to claim 1, where the multifunctional (meth)acrylic monomer of alkoxylated (meth)acrylate is ethoxylated or propoxylated di(meth)acrylate.

8. (previously amended) Compositions according to claim 1, where the multifunctional (meth)acrylic monomer of alkoxylated (meth)acrylate is ethoxylated or propoxylated tri(meth)acrylate.

9. (previously amended) Compositions according to claim 8, where the ethoxylated triacrylate monomer is the ethoxylated trimethylolpropane triacrylate.

10. (previously amended) Compositions according to claim 8, where the ethoxylated triacrylate monomer is the ethoxylated pentaerythritol triacrylate.

11. (previously amended) Compositions according to claim 1, where the multifunctional (meth)acrylic monomer of alkoxylated (meth)acrylate is ethoxylated or propoxylated tetra (meth)acrylate.

12. (previously amended) Method for preparation of a composition as defined in claim 1, comprising the steps of:

mixing, at ambient temperature under agitation, an aqueous solution of said silica, said vinylsilane of formula (I), said alkoxylated (meth)acrylate, and isopropyl alcohol; and

distilling the resultant mixture under reduced pressure and under agitation, at a temperature below 50°C, until the water and volatile solvents are eliminated.

BEST AVAILABLE COPY

Attorney's Docket: 2000FR303
Serial No.: 09/821,876
Art Unit 1711

13. (previously amended) Method according to claim 12, where the initial aqueous silica sol is an acid sol.

14. (previously amended) Method according to claim 13, where the initial silica sol has a pH between 1 and 3.

15. (previously amended) A method of providing a transparent and uncoloured coatings on a substrate to protect said substrate against abrasion comprising the steps of:

providing a substrate;

depositing a coating composition to said substrate, where said coating composition is the composition of claim 1 ; and

hardening said coating composition.

C' 16. (previously amended) A method of providing a transparent and uncoloured varnishes on a substrate to protect said substrate against scratch comprising the steps of:

providing a substrate;

depositing a coating composition to said substrate, where said coating composition is the composition of claim 1 ; and

hardening said coating composition.

17. (previously added) A method according to claim 15, where hardening said coating composition is done thermally or/and by radiation, by a radical mechanism.

18. (previously added) A method according to claim 16, where hardening said coating composition is done thermally or/and by radiation, by a radical mechanism.